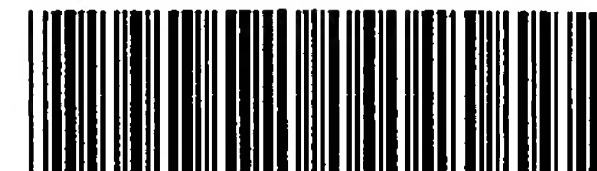


0590
2528

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ENTERED



OIPE

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/032,254A

DATE: 06/03/2002

TIME: 13:23:22

Input Set : A:\M-2335pl.app

Output Set: N:\CRF3\06032002\J032254A.raw

3 <110> APPLICANT: CHODOSH, Lewis
4 GARDNER, H
6 <120> TITLE OF INVENTION: PREGNANCY UP-REGULATED, NONUBIQUITOUS CaM KINASE
8 <130> FILE REFERENCE: 22253-70422
10 <140> CURRENT APPLICATION NUMBER: 10/032,254A
C--> 11 <141> CURRENT FILING DATE: 2002-05-21
13 <150> PRIOR APPLICATION NUMBER: 60/257,073
14 <151> PRIOR FILING DATE: 2000-12-21
16 <160> NUMBER OF SEQ ID NOS: 8
18 <170> SOFTWARE: PatentIn Ver. 2.1
20 <210> SEQ ID NO: 1
21 <211> LENGTH: 1554
22 <212> TYPE: DNA
23 <213> ORGANISM: Murinae gen. sp.
25 <400> SEQUENCE: 1
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27 ggtgactgtg gtcgtgacag gtggctgcaa gcagggtcgc agacatgctg ctgctcaaga 120
28 aacagacgga ggacatcagc agtgtctatg agatccggga gaagctgggc tcgggtgcct 180
29 tctctgaggt gatgctggcc caggaaaggg gctctgctca tcttgtggcc ctcaagtgca 240
30 ttcccaagaa agcacttcgg ggcaaggagg ccctggtgga gaatgagatc gcggtacttc 300
31 gcagaatcag ccatcccaac attgtggctc tggaggacgt ccatgagagt ccttctcatc 360
32 tctacttggc catggagctg gtaacagggt gtgaactggt tgaccgcatc atggagcggg 420
33 gtcctacac agagaaggac gccagccacc ttgtagggca ggtccttggc gctgtctcct 480
34 accttcatag cctgggcatc gtgcaccggg acctcaagcc tgaaaacctc ctctatgcca 540
35 caccttttga ggactccaag atcatggtct ctgacttttg cctgtccaaa atacaagctg 600
36 gcaacatgct aggcacagcc tgtgggaccc caggatatgt ggccccagag ctcttgagc 660
37 agaaacccta cgggaaggcc gtagatgtgt gggccctggg tgtcatctcc tacatcctgc 720
38 tgtgtgggta ccccccttc tatgatgaga gcgatcctga actcttcagc cagattctga 780
39 gggccagcta tgagtttgac tccccctttt gggatgacat ctcagaatca gccaaagact 840
40 tcattcgcca ccttctggaa cgtgatcccc agaagaggtt cacctgccag caggccctac 900
41 agcatctttg gatctctggg gatgcagcct tcgataggga catcctgggt tctgtcagtg 960
42 agcagatcca gaagaatttt gccaggaccc actggaagcg tgcattcaat gccacatcat 1020
43 tcctacgtca catccgtaag ctgggacaaa gccagagggt tgaggaggcc tccaggcagt 1080
44 gtatgacccg tcatagccac ccaggccttg ggactagcca gtcccccaag tggtgaaaac 1140
45 caggtagatg ccaaggaagg ccaagtggac tgactcccg tttttctttc ctccagccct 1200
46 tttgggtctc ttcttgatc cttgtcctcc agactggcct ctgctggaaa gtctgagact 1260
47 ggggtgtgat catggcacta gggtagggg cttccccagt atgtcccca gcctctattc 1320
48 ttacctatgg tggaggctcc ctttcccatg tcgctgccac cctctatgga aactgaggag 1380
49 gtgttcaaaa gtggacttgg gagccatcct tcctgcacct tgcacgaaca catgcattgt 1440
50 gtggctgttc tgtgctttgc tgactgtggg tggctcctgt tgtgttgtgg ccctttagtt 1500
51 cctccttttc ctaaccaata aagacaaaca gaacaaaaa aaaaaaaaaa aaaa 1554
54 <210> SEQ ID NO: 2
55 <211> LENGTH: 343

RAW SEQUENCE LISTING

DATE: 06/03/2002

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TIME: 13:23:22

Input Set : A:\M-2335pl.app

Output Set: N:\CRF3\06032002\J032254A.raw

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56 <212> TYPE: PRT
57 <213> ORGANISM: Murinae gen. sp.
59 <400> SEQUENCE: 2
60 Met Leu Leu Leu Lys Lys Gln Thr Glu Asp Ile Ser Ser Val Tyr Glu
61 1 5 10 15
63 Ile Arg Glu Lys Leu Gly Ser Gly Ala Phe Ser Glu Val Met Leu Ala
64 20 25 30
66 Gln Glu Arg Gly Ser Ala His Leu Val Ala Leu Lys Cys Ile Pro Lys
67 35 40 45
69 Lys Ala Leu Arg Gly Lys Glu Ala Leu Val Glu Asn Glu Ile Ala Val
70 50 55 60
72 Leu Arg Arg Ile Ser His Pro Asn Ile Val Ala Leu Glu Asp Val His
73 65 70 75 80
75 Glu Ser Pro Ser His Leu Tyr Leu Ala Met Glu Leu Val Thr Gly Gly
76 85 90 95
78 Glu Leu Phe Asp Arg Ile Met Glu Arg Gly Ser Tyr Thr Glu Lys Asp
79 100 105 110
81 Ala Ser His Leu Val Gly Gln Val Leu Gly Ala Val Ser Tyr Leu His
82 115 120 125
84 Ser Leu Gly Ile Val His Arg Asp Leu Lys Pro Glu Asn Leu Leu Tyr
85 130 135 140
87 Ala Thr Pro Phe Glu Asp Ser Lys Ile Met Val Ser Asp Phe Gly Leu
88 145 150 155 160
90 Ser Lys Ile Gln Ala Gly Asn Met Leu Gly Thr Ala Cys Gly Thr Pro
91 165 170 175
93 Gly Tyr Val Ala Pro Glu Leu Leu Glu Gln Lys Pro Tyr Gly Lys Ala
94 180 185 190
96 Val Asp Val Trp Ala Leu Gly Val Ile Ser Tyr Ile Leu Leu Cys Gly
97 195 200 205
99 Tyr Pro Pro Phe Tyr Asp Glu Ser Asp Pro Glu Leu Phe Ser Gln Ile
100 210 215 220
102 Leu Arg Ala Ser Tyr Glu Phe Asp Ser Pro Phe Trp Asp Asp Ile Ser
103 225 230 235 240
105 Glu Ser Ala Lys Asp Phe Ile Arg His Leu Leu Glu Arg Asp Pro Gln
106 245 250 255
108 Lys Arg Phe Thr Cys Gln Gln Ala Leu Gln His Leu Trp Ile Ser Gly
109 260 265 270
111 Asp Ala Ala Phe Asp Arg Asp Ile Leu Gly Ser Val Ser Glu Gln Ile
112 275 280 285
114 Gln Lys Asn Phe Ala Arg Thr His Trp Lys Arg Ala Phe Asn Ala Thr
115 290 295 300
117 Ser Phe Leu Arg His Ile Arg Lys Leu Gly Gln Ser Pro Glu Gly Glu
118 305 310 315 320
120 Glu Ala Ser Arg Gln Cys Met Thr Arg His Ser His Pro Gly Leu Gly
121 325 330 335
123 Thr Ser Gln Ser Pro Lys Trp
124 340
127 <210> SEQ ID NO: 3
128 <211> LENGTH: 21

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RAW SEQUENCE LISTING

DATE: 06/03/2002

PATENT APPLICATION: US/10/032,254A

TIME: 13:23:22

Input Set : A:\M-2335pl.app

Output Set: N:\CRF3\06032002\J032254A.raw

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129 <212> TYPE: DNA
130 <213> ORGANISM: Artificial Sequence
132 <220> FEATURE:
133 <223> OTHER INFORMATION: Description of Artificial Sequence:degenerate
134     oligonucleotide primer PTKIa
136 <220> FEATURE:
137 <221> NAME/KEY: misc_feature
138 <222> LOCATION: (17)
139 <223> OTHER INFORMATION: n is a, c, g, or t
141 <400> SEQUENCE: 3
W--> 142 gggcccggat ccacmgngay y                                21
145 <210> SEQ ID NO: 4
146 <211> LENGTH: 28
147 <212> TYPE: DNA
148 <213> ORGANISM: Artificial Sequence
150 <220> FEATURE:
151 <223> OTHER INFORMATION: Description of Artificial Sequence:degenerate
152     oligonucleotide primer PTKIIa
154 <400> SEQUENCE: 4
155 cccggggaat tccawaggac casacrtc                                28
158 <210> SEQ ID NO: 5
159 <211> LENGTH: 25
160 <212> TYPE: DNA
161 <213> ORGANISM: Artificial Sequence
163 <220> FEATURE:
164 <223> OTHER INFORMATION: Description of Artificial Sequence:degenerate
165     oligonucleotide primer BSTKIa
167 <400> SEQUENCE: 5
168 gggcccggat ccrtrcacmg vgacy                                25
171 <210> SEQ ID NO: 6
172 <211> LENGTH: 28
173 <212> TYPE: DNA
174 <213> ORGANISM: Artificial Sequence
176 <220> FEATURE:
177 <223> OTHER INFORMATION: Description of Artificial Sequence:degenerate
178     oligonucleotide primer BSTKIIa
180 <400> SEQUENCE: 6
181 cccggggaat tccrwarctc casacatc                                28
184 <210> SEQ ID NO: 7
185 <211> LENGTH: 1412
186 <212> TYPE: DNA
187 <213> ORGANISM: Homo sapiens
189 <400> SEQUENCE: 7
190 atgctgctgc tgaagaaaca cacggaggac atcagcagcg tctacgagat ccgcgagagg 60
191 ctcggtctcg gtgccttctc cgaggtggtg ctggcccagg agcggggctc cgcacacctc 120
192 gtggccctca agtgcattcc caagaaggcc ctccggggca aggaggccct ggtggagaac 180
193 gagatcgcag tgctccgtag gatcagtcac cccaacatcg tcgctctgga ggatgtccac 240
194 gagagccctt cccacctcta cctggccatg gaactggtga cgggtggcga gctgtttgac 300
195 cgcatcatgg agcgcggctc ctacacagag aaggatgccca gccatctggt gggtcaggtc 360

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RAW SEQUENCE LISTING

DATE: 06/03/2002

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TIME: 13:23:22

Input Set : A:\M-2335p1.app

Output Set: N:\CRF3\06032002\J032254A.raw

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196 cttggcgccg tctcctacct gcacagcctg gggatcgtgc accggggacct caagcccgaa 420
197 aacctcctgt atgccacgcc ctttgaggac tcgaagatca tgggtctctga ctttggactc 480
198 tccaaaatcc aggctgggaa catgctaggc accgctgtg ggacctctgg atatgtggcc 540
199 ccagagctct tggagcagaa accctacggg aaggccgtag atgtgtgggc cctgggctgc 600
200 atctcctaca tcctgctgtg tgggtacccc cccttctacg acgagagcga ccctgagctc 660
201 ttcagccaga tcctgagggc cagctatgag tttgactctc ctttctggga tgacatctca 720
202 gaatcagcca aagacttcat ccggcacctt ctggagcgag acccccagaa gaggttcacc 780
203 tgccaacagg ccttgcgga cctttggatc tctggggaca cagccttcga caggacatc 840
204 ttaggctctg tcagttagca gatccggaag aactttgctc ggacacactg gaagcgagcc 900
205 ttcaatgcca cctcgttctt gcgccacatc cggaagctgg ggcagatccc agagggcgag 960
206 ggggcctctg agcagggcat ggcccggcac agccactcag gcctccgtgc tggccagccc 1020
207 cccaagtgtg gatgccagc cagatgccga ggccaagtgg actgaccccc agatttcctt 1080
208 cccttgatg ctttcgggtcc cctcccccaa cccctcccc tgggtctggc ctctgctgga 1140
209 ttttgagatt tgaggggtgtg gcgcatggcg ctgggggttg aatggggcac cccaagtct 1200
210 gtccccagc tctgccctgc ctgggggcag tggctccct cccctgttgc ctctcccgcc 1260
211 cctgcccccc ccgccccgcc aaaagccgag ggggtgctgg caggcgggcc tcaggggctg 1320
212 tctttcctgc acggctgttg tgtgcttcgc tgagtgtggg tggctctgct tgtgtcatgg 1380
213 tcatggcctt ccagccccct ccagttttcc cc 1412

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216 <210> SEQ ID NO: 8

217 <211> LENGTH: 343

218 <212> TYPE: PRT

219 <213> ORGANISM: Homo sapiens

221 <400> SEQUENCE: 8

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223   1           5           10           15
225 Ile Arg Glu Arg Leu Gly Ser Gly Ala Phe Ser Glu Val Val Leu Ala
226           20           25           30
228 Gln Glu Arg Gly Ser Ala His Leu Val Ala Leu Lys Cys Ile Pro Lys
229           35           40           45
231 Lys Ala Leu Arg Gly Lys Glu Ala Leu Val Glu Asn Glu Ile Ala Val
232           50           55           60
234 Leu Arg Arg Ile Ser His Pro Asn Ile Val Ala Leu Glu Asp Val His
235           65           70           75           80
237 Glu Ser Pro Ser His Leu Tyr Leu Ala Met Glu Leu Val Thr Gly Gly
238           85           90           95
240 Glu Leu Phe Asp Arg Ile Met Glu Arg Gly Ser Tyr Thr Glu Lys Asp
241           100          105          110
243 Ala Ser His Leu Val Gly Gln Val Leu Gly Ala Val Ser Tyr Leu His
244           115          120          125
246 Ser Leu Gly Ile Val His Arg Asp Leu Lys Pro Glu Asn Leu Leu Tyr
247           130          135          140
249 Ala Thr Pro Phe Glu Asp Ser Lys Ile Met Val Ser Asp Phe Gly Leu
250          145          150          155          160
252 Ser Lys Ile Gln Ala Gly Asn Met Leu Gly Thr Ala Cys Gly Thr Pro
253           165          170          175
255 Gly Tyr Val Ala Pro Glu Leu Leu Glu Gln Lys Pro Tyr Gly Lys Ala
256           180          185          190
258 Val Asp Val Trp Ala Leu Gly Val Ile Ser Tyr Ile Leu Leu Cys Gly
259           195          200          205

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RAW SEQUENCE LISTING

DATE: 06/03/2002

PATENT APPLICATION: US/10/032,254A

TIME: 13:23:22

Input Set : A:\M-2335p1.app

Output Set: N:\CRF3\06032002\J032254A.raw

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261 Tyr Pro Pro Phe Tyr Asp Glu Ser Asp Pro Glu Leu Phe Ser Gln Ile
262      210                      215                      220
264 Leu Arg Ala Ser Tyr Glu Phe Asp Ser Pro Phe Trp Asp Asp Ile Ser
265 225                      230                      235                      240
267 Glu Ser Ala Lys Asp Phe Ile Arg His Leu Leu Glu Arg Asp Pro Gln
268                      245                      250                      255
270 Lys Arg Phe Thr Cys Gln Gln Ala Leu Arg His Leu Trp Ile Ser Gly
271                      260                      265                      270
273 Asp Thr Ala Phe Asp Arg Asp Ile Leu Gly Ser Val Ser Glu Gln Ile
274                      275                      280                      285
276 Arg Lys Asn Phe Ala Arg Thr His Trp Lys Arg Ala Phe Asn Ala Thr
277      290                      295                      300
279 Ser Phe Leu Arg His Ile Arg Lys Leu Gly Gln Ile Pro Glu Gly Glu
280 305                      310                      315                      320
282 Gly Ala Ser Glu Gln Gly Met Ala Arg His Ser His Ser Gly Leu Arg
283                      325                      330                      335
285 Ala Gly Gln Pro Pro Lys Trp
286                      340

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RAW SEQUENCE LISTING ERROR SUMMARY DATE: 06/03/2002
PATENT APPLICATION: US/10/032,254A TIME: 13:23:23

Input Set : A:\M-2335p1.app
Output Set: N:\CRF3\06032002\J032254A.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:3; N Pos. 17

VERIFICATION SUMMARY

DATE: 06/03/2002

PATENT APPLICATION: US/10/032,254A

TIME: 13:23:23

Input Set : A:\M-2335p1.app

Output Set: N:\CRF3\06032002\J032254A.raw

L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:142 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0